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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,729	02/20/2004	Marie S. Chan	5719	6615

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Milliken & Company  
P.O. Box 1927  
Spartanburg, SC 29304

EXAMINER

HAMLIN, DERRICK G

ART UNIT PAPER NUMBER

1751

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n No.

10/783,729

Applicant(s)

CHAN ET AL.

Examiner

Derrick G. Hamlin

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-- The MAILING DATE f this communication appears on the cover sheet with the corresp ndence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Evaluations of level of ordinary skill in the art requires consideration of factors such as various prior art approaches employed, types of problems encountered in the art, rapidity with which innovations are made, sophistication of technology involved, educational background of those actively working in the field, commercial success, failure of others, and the inventor's educational level.

The "person having ordinary skill" in this art has the capability of understanding the scientific and engineering principles applicable to the claimed invention. The references of record in this case reasonably reflect this level of skill.

1. Claims 1-5, 8-11, 13-15, 21-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Trinh et al (US 4,481,126).

Trinh discloses a substantially nonabrasive, liquid car cleaner composition which cleans car surfaces without an external source of water to wash or rinse. The product is a composition of up to 30% polymeric solids, up to 95% liquid carrier and a suspension aid. (abstract) Other optional ingredients such as waxes, fluorosurfactants, anticorrosion agents, antistatic agents, sunscreens, inorganic mild abrasives,

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pigments, perfumes, and preservatives can also be used for added benefits. (col. 2, lines 64-68) The liquid car cleaner composition of this invention comprises organic polymeric solids selected from the group consisting of: porous and/or nonporous powdered particles in the particle size range of from 1 micron to about 250 microns (col. 2, lines 37-42) A liquid carrier is required and can be used at a level of up to 95% by weight of the composition. Water and aliphatic hydrocarbon (oil) solvents are used as the liquid carrier. Mixtures of water and aliphatic hydrocarbon solvents are preferred. Both surfactants and thickeners are used as the suspending agent. The surfactants are also used as emulsifier and cleaning aid. (col. 2, lines 53-56 and 59-62) The suitable polymeric particulate materials can be synthetic or naturally-occurring polymeric materials include, but are not limited to, polyethylene, polypropylene, polystyrene, polyester resin, urea-formaldehyde resin, polyvinyl chloride, polyacrylics, polyamide, and copolymers, whereas the naturally-occurring polymeric materials are cellulosic materials. (col. 3, lines 34-44) The suspending agents useful in this invention are suitable surfactants and thickeners and mixtures thereof. These surfactant suspending agents have the properties of dispersing solid particles and liquid droplets. They are used to disperse the polymeric particles throughout the cleaner compositions. Most of the cleaning compositions of this invention contain both oil and water phases. The surfactants also stabilize the emulsion of these two phases. Substantially any surfactant materials which are compatible with the other components in the composition of this invention can be utilized. These include nonionic, anionic, cationic, amphoteric and zwitterionic surfactants. The composition of this invention can consist of up to 10%

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by weight of a suspending agent surfactant; preferably between 0.4% and 2%.

Thickener suspending agents that can be utilized include, but are not limited to, salts of polyacrylic acid polymer, sodium carboxymethyl cellulose, hydroxyethyl cellulose, acrylic ester polymer, polyacrylamide, polyethylene oxide, natural polysaccharides such as gums, algin, pectins. They are used at effective levels of up to 10%. (col. 5, lines 18-45) Although the reference does not teach that the surfactant provides a surface tension in water of about 40 dynes per cm, the compositions are identical and thus the property would be inherent. Example 1 discloses all of the instantly claimed components in their required amounts. (col. 10, lines 46-68)

The reference is anticipatory.

2. Claims 1-4, 6-15, 17, 26-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al (US 4,534,892).

Suzuki discloses a liquid detergent composition containing an anionic surface active agent and a water-insoluble fine powder, characterized by containing therein a cross linking type amphoteric polymer and an inorganic salt. (abstract) The reference teaches that several glycols and phosphates may be used and that the foaming properties are improved using a polyacrylic acid and as a pH adjuster. (col. 3, lines 15-25 and col. 1, lines 48 and 54-63). Inorganic salts used in the present invention are alkali metals, alkaline earth metals or aluminum salts of hydrochloric acid, sulfuric acid, nitric acid, etc. Of such inorganic salts, preferred are potassium sulfate, sodium sulfate, magnesium sulfate, aluminum sulfate, potassium nitrate, sodium nitrate, magnesium nitrate, calcium nitrate, aluminum nitrate, potassium chloride, sodium chloride,

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magnesium chloride, calcium chloride, aluminium chloride, potassium carbonate, sodium carbonate, and aluminium carbonate, and particularly sodium sulfate, potassium nitrate, sodium nitrate, potassium chloride and sodium chloride are preferable. With respect to the amount of the inorganic salt to be incorporated into the liquid detergent composition of the present invention, the ratio (weight ratio) of the inorganic salt relative to the cross linking type amphoteric polymer is important, and the amount of the inorganic salt should be 10 to 1/10 times that of the cross linking type amphoteric polymer. (col. 5, lines 25-44) Alkyl- or alkenylethoxy sulfates having straight or branched chain alkyl or alkenyl groups with the average carbon number of 8-20 and having added ethylene oxide of 0.5-8 moles on average to the molecule. (col. 5, lines 56-59) Furthermore, although water-insoluble fine powder used in the present invention is not particularly limited to specific ones, preferably usable are pigments such as silicon dioxide, aluminium oxide, magnesium oxide, titanium oxide, aluminosilicate, silicon carbide, calcium carbonate, calcium phosphate, chromium oxide, barium carbonate, Hansa Yellow, talc, etc.; pearling agents or clouding agents such as mica, fish scale, etc. and germicidal preservatives as zinc-2-pyridyl-thio-1,1'-dioxide; The fine powder usually has a particle size of less than 150 microns. (col. 6, lines 42-58) Nonionic surface active agents, amphoteric surface active agents and cationic surface active agents may be used in combination with the anionic surface active agents. Other components which may be incorporated are dissolving agents such as propylene glycol, glycerin, urea, etc.; viscosity regulators such as ethanol, isopropanol, higher alcohol, hydroxyethyl cellulose, hydroxypropyl cellulose, etc.; perfumes, dyes, ultraviolet

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absorbers, antioxidants, water-soluble anti-dandruff agents, sterilizers, preservatives, etc. The liquid detergent composition of the present invention obtained in the aforementioned manner is applicable to various purposes such as detergent for wool and silk, body shampoo, detergent for fine fabric, etc. (col. 7, lines 7-29) Example 2 teaches the use of 2-methacryloxyethyl diethylammonium ethosulfate (col. 9, lines 39-58) and all the example discloses that water makes up the balance of the compositions.

The reference is anticipatory.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 6, 7, 11, 16, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trinh et al (US 4,481,126), as relied upon in the rejection above.

The reference fails to teach the particle size of the calcium carbonate used. The reference fails to teach the specific surfactant of claim 11. The reference fails to teach that the acrylic component that is disclosed is an acrylic stain resistant agent.

Although the reference fails to teach the particle size of the calcium carbonate used, the reference does teach mild inorganic abrasives such as calcium carbonate powder can also be used when polishing action is desired so long as they do not leave unsightly residue on textured vinyl surfaces, (col. 6, lines 28-31) as well as the particle

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sizes of the other solids that are present, therefore there would be a reasonable expectation of success to modify the prior art to arrive at the instantly claimed invention because the prior art suggest a particle size of other solids to be suspended. Although the reference fails to teach the specific surfactant of claim 11, however there would be a reasonable expectation of success to modify the prior art to arrive at the instantly claimed invention because the prior art does suggest that any surfactant that is compatible with the system may be used. Although the reference fails to teach that the acrylic component that is disclosed is an acrylic stain resistant agent the reference does teach that acrylic additives may be used, therefore there would be a reasonable expectation that material of the same structure will have similar properties.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to create the instantly claimed composition in view of the Trinh cleaning composition, which contains all the required components in the required amounts.

4. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trinh et al (US 4,481,126), as relied upon in the rejection above, further in view of Froehlich (US 3910848) or Brown (US 5514302).

The primary reference fails to teach that aerosol may be used with the liquid cleaner of the variety disclosed.

Although the reference does not disclose the use of an aerosol propellant, the use of aerosols with cleaning compositions is well known in the art. Froehlich, the secondary reference in analogous art teaches that a cleaning composition containing a



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polymer urea-formaldehyde polymer particles having a particle size of from 10 to 105 microns and an oil value of at least 90, a halogenated solvent boiling at from 45.degree. to 120 degree C., a silica antissettling agent, a cationic antistatic agent, and an aerosol propellant selected from at least one of trichlorofluoromethane, dichlorodifluoromethane, 1,2-dichlorotetrafluoroethane, propane, isobutane and butane. (col. 1, lines 37-60).

Therefore there is a reasonable expectation of success that an aerosol may be used with the composition of the reference as the composition of the secondary reference has similar structural properties, uses and components.

Brown, the secondary reference in analogous art teaches an improved aqueous fabric cleaning shampoo composition fabric solid cleaning polymer, surfactant in water. Which may be in the form of a self-pressurized aerosol, with a conventional propellant such as dimethyl ether or one or more saturated alkanes containing from 2 to 6 carbon atoms such as propane, isopropane, n-butane, isobutane, isopentane or n-hexane is added through the valve. Although the reference does not disclose the use of an aerosol propellant, the use of aerosols with cleaning compositions is well known in the art. Brown, (abstract col. 10, lines 27-48).

Therefore there is a reasonable expectation of success that an aerosol may be used with the composition of the reference as the composition of the secondary reference has similar structural properties, uses and components.

5. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (US 4,534,892), as relied upon in the rejection above.

The reference fails to teach the specific biocides used.

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Although the reference fails to teach that the specific biocides used the reference does teach that germicides may be used, therefore there would be a reasonable expectation that any germicide may be used in the absence of superior or unexpected results.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to create the instantly claimed composition in view of the Suzuki liquid cleaning composition, which contains all the required components in the required amounts.

In view of the forgoing, the above claims have failed to be patently distinguishable over prior art.

The remaining references listed on form(s) 892 and/or 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the rejection above.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick G. Hamlin whose telephone number is (571) 272-1317. The examiner can normally be reached on Monday-Fridays from ~8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta, can be reached on (571) 272-1316. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Derrick G. Hamlin

1/10/05

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